

Clark State Forest and Deam Lake State Recreation Area:

Bringing Recreation & Science Together

An Honors Thesis (HONR 499)

By

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Abstract

Clark State Forest and Deam Lake State Recreation Area contain thousands of acres of forests and lakes. These lands attract visitors from all over Indiana and neighboring states. Clark State Forest was the first state forest created in 1903. Clark State Forest was used for experimental plantings and research projects for multiple decades before it became a popular recreation destination. Some recreational development took place before the 1930s, and then the CCC expanded the development of recreational resources. Today the forest is used for hiking, hunting in season, camping, and fishing. Deam Lake State Recreation Area was created to provide an outdoor recreation area for the public from a portion of Clark State Forest. It was founded in 1964 and is one of the most popular horseback riding properties in Indiana. Currently the Indiana Department of Natural Resources is having a hard time convincing the public that the state forest is meant for forestry projects and that recreation purposes come secondary.

Acknowledgments

First of all I would like to thank my parents for their love and encouragement throughout my school career. They have given my every opportunity to make the best of my life and the freedom to make my own decisions. They instilled confidence in me that I could grow up to do anything I wanted, even if I'm still not sure what exactly I want to do.

Secondly like to thank Alayna Bridges for being my best friend and helping me get through college without losing my mind. She was always willing to go on random trips to Walmart in the middle of the night after long days working on school to help relieve stress. I could not have gotten through college without her by my side.

Lastly I would like to thank Dr. Ronald Morris for helping me with this project. He had to deal with my poor email skills and ability to narrowly miss important deadlines. I could not have asked for a better advisor to work with during my last semester at Ball State.

Clark State Forest is home to a multitude of recreation facilities. It prides itself on its multi-use concept as an adaption and adjustment of its original mission. Deam Lake State Recreation Area was established to meet recreational demand while the original mission of Clark State Forest remains. The forest offers fishing, hunting, hiking, boating, picnicking, and camping. Because the forest has so many activities to offer, the public has come to think of it as another state park. The Indiana Department of Natural Resources want to be clear that the state forests are not just a supplement to state parks. It is hard to maintain this stance with Clark State Forest and Deam Lake State Recreation Area because they are large multi-use areas that the public has grown to love.

In the forest's early history minimal effort was made to include recreational areas for the public. It was not until the early 1930s that simple recreation sites began to be built. The Division of Forestry created shelter houses and picnic areas for the public but maintained the stance that:

In visiting one of the state forests, visitors should keep in mind that the objectives of the Division of Forestry are (1) to show by means of demonstration that the worn-out, eroded, and abandoned farmland of Indiana can be used to produce a profitable crop of timber. Protection from fire and grazing is essential to carry out this objective. (2) To provide some recreational opportunities for the people in sections of the state where a state park is not available. (3) To demonstrate in connection with good forest management.¹

Today, the forest system is run by the Indiana Department of Natural Resources. The current State Forest Management Policy states:

¹"Engineering Developments at Parks, Forests, Hatcheries and Game Preserves." *Outdoor Indiana*, December 1, 1937, 30.

“Your state forests are managed under the policy of multiple use in order to obtain benefits from recreation, timber production and watershed protection. They are open to the public for hunting during season and are actively managed for healthy fish and wildlife populations. Recreational development will not take precedence over natural resource conservation and protection and will continue to be structured on the natural rather than the ‘built’ environment.”²

Forestry was folded into the Department of Conservation when it was created, and it evolved into the Department of Natural Resources Division of Forestry. Many patrons that come to the forest view it as a state park and think that recreational use should come before natural resource conservation and the forestry industry. In an attempt to clarify recreation was always allowed but was always secondary even though it is given more consideration than originally. The current population that was not present at the creation of the forestry program does not always know why state forests were created.

Thanks to the success of the state forest program, it is currently hard to imagine Indiana having a low timber supply. It is easier to imagine that the state forest was created to maintain green space and give citizens a glimpse of what nature. The camping facilities, horseback riding, large picnic areas, and the Knobstone Trail have received thousands of visitors since their respective completion dates. The Division of Forestry manages a forest and strives to create a pragmatic plan of sustainable harvest. Some harvesting is necessary to sustain healthy woods, and they practice selective harvesting today.

² "Indiana Department of Natural Resources." DNR: Properties. Accessed January 23, 2015. <http://www.in.gov/dnr/forestry/3631.htm>.

The public yearns for more areas to explore and are less than thrilled with the idea that parts of the forest will be harvested for timber at any time. Society has changed from an industry focused mindset to one that believes in sustainability and preserving nature for enjoyment.

History of Clark State Forest

Clark State Forest has one of the richest histories of all the state forests in Indiana. Clark State Forest started as the first forest, was used for conservation purposes, and has transformed into a multi-purpose site. Clark was established to create a forest for future harvests and as a place for experimenting with new forestry techniques. These conservation purposes included a number of activities, nurseries, and experimental plantings. Visitors, chiefly hikers and picnickers, were always allowed, although, there was no great effort to accommodate them until the development of the New Deal.

Dwindling timber supplies were a concern for many woodworking facilities in Indiana that relied on Indiana's timber to remain open. The timber industry was a major part of southern Indiana's agricultural income, but thousands of acres had been deforested. In response to the problem, the state of Indiana decided to begin a state forest to ensure the continued existence of timber for woodworking facilities, and to allow Indiana to maintain its ability to export hardwood.³

Indiana truly began to recognize that the state faced a dwindling timber reserve, and that something would need to be done to reverse the problem. Indiana created the Board of Forestry in 1901 as a response to the awareness and they established the state forest in an effort to deal with it. To create a state forest, the board needed to find land that could be used to plant new trees. Indiana started with one state forest and it took them over 26 years to establish another.

³ Kramer, Carl E., and Mary Kagin Kramer. *This Place We Call Home: A History of Clark County, Indiana*. Bloomington, Indiana: Indiana University Press, 2007. 265.

To understand the history of the forest from the government's view one needs to understand the administration at the time. The administration was focused on larger issues that demanded their attention.⁴ Because they were focused on other issues they did not make a clear connection of how the public would be impacted on a recreational level. The general assembly created the forest to combat the dwindling timber supply, not to create a new recreational site for the public.

In May of 1903, 2028 acres were acquired during Governor Winfield Durbin's administration for \$16,000. The forest was pushed through by the General Assembly. Durbin had little to do with the actual creation of the forest. He gives credit to the general assembly in his biennial message stating:

After a careful investigation ... the State Board of Forestry selected and purchased two thousand acres of land in Clark County ... The land selected is peculiarly adapted to the purposes for which it was secured, and under the personal and careful supervision of the Board has been converted from an unimproved condition at the time of purchase into a valuable forestry reserve ... The reserve promises to become a permanent experimental and educational institution for the advancement of forestry in the State.⁵

The General Assembly had governor Durbin's support as they worked towards creating the State Board of Forestry. This ultimately led to the creation of the state forest system. Additional acquisitions increased this area to 24,000 acres. The experimental forestry that occurred in the

⁴ "Indiana Historical Bureau." IHB: Indiana Governor Winfield Taylor Durbin (1847. Accessed January 23, 2015. <http://www.in.gov/history/2727.htm>.

⁵ Indiana. Governor (1901-1905: Durbin). (1905). *Biennial message of Governor Winfield T. Durbin and inaugural address of Governor J. Frank Hanly: together with addresses of Lieutenant-Governor Newton W. Gilbert and Lieutenant-Governor Hugh Th. Miller, to the Sixty-fourth General Assembly, Indiana*. Indianapolis, Ind.: Wm. B. Burford, contractor for state printing and binding.

first three decades at Clark State Forest helped develop forestry into a science and profession. The experimental forestry was due to the work of Charles Deam, the first State Forester.

Charles C. Deam

Charles Clemon Deam was one of the founding fathers of the Indiana state forest program. He grew up in northeastern Indiana. Deam attended DePauw University for two years. He left school to become a pharmacist and spend more time with his hobby of botany. He made it his mission to collect and preserve plant specimens. He was able to catalogue over 63,000 specimens that are currently held at Indiana University. His legacy is also honored with the Charles C. Deam Wilderness in the Hoosier National Forest.

Deam was on the forestry board from the very beginning, but his botany work caught the attention of Indiana Governor Thomas R. Marshall who appointed Deam State Forester in 1909.⁶ This made him Indiana's first state forester. He held two terms from 1909 to 1913 and 1917 to 1928. Deam created the first 20th Century forestry care experimental laboratory. Deam also convinced the state to purchase an additional 2,000 acres (810 ha) to add the state forest lands in Clark County. Deam studied the environmental needs of the second growth forests.

Deam's work as state forester was notable for several reasons. While working at Clark State Forest, Deam had a firsthand look at how deforestation led to wide-scale erosion. He noted the history of the forests as they were affected by settlement and farming in southern Indiana. Most of his work is recorded in four books published between 1924 and 1940. The books include: *The Shrubs of Indiana*, *The Trees of Indiana*, *The Grasses of Indiana*, and *The Flora of Indiana*. Deam is best known for his book, *Trees of Indiana*, a comprehensive study of

⁶ [Item], Charles C. Deam papers, Collection C22, Office of University Archives and Records Management, Indiana University, Bloomington.

trees throughout the state.⁷ In 1920, he wrote *The Forests of Indiana, Past, Present, and Future*, a report for the Division of Forestry that focuses on the destruction of forests. He was especially interested in the deforestation.

In the 1700s, Indiana had over twenty million acres of forests; between the late 1800s and early 1900s nearly 18 million acres were cleared for farmland.⁸ In his report Deam writes,

The extreme fertility of the soil attracted the relatives and friends of the first settlers which displaced the Indians until 1832.... [S]ettlement rapidly followed and magnificent forest areas were cut and burned to obtain more arable land.... People soon learned that they could enter or buy a tract of land, sell off enough timber to erect a house and barn and to pay for the land. Saw mills were soon built every few miles along the railroads. It was soon learned that Indiana white oak, black walnut, yellow poplar, etc., were among the best of their kind in the world.⁹

His report highlighted the rapid rate of destruction suffered by the forests due to settlements.

He actively sought ways to reclaim the forest on land that was cleared for farming and timber. Deforestation was another factor that led to soil erosion. At the time, no one, other than Deam, really thought about what the implications of soil erosion were. In his report he included a statement about the effects of soil erosion,

The greatest amount of forestland is in the hilly countries or on the roughest ground-- areas that are too hilly, steep or rocky to be profitably farmed. It is a well-known fact when a steep slope is cleared and farmed that the soil gradually washes off, and in time

⁷ Ksander, Yael. "Moment of Indiana History - Indiana Public Media | The Forests' Friend." Moment of Indiana History RSS. December 27, 2010. Accessed February 10, 2015.
<http://indianapublicmedia.org/momentofindianahistory/forests-friend>.

⁸ "Our Land, Our Literature: Environment - Deforestation." Our Land, Our Literature: Environment - Deforestation. October 1, 2002. Accessed February 10, 2015.
<http://landandlit.iweb.bsu.edu/Environment/Issues/Deforestation.html>.

⁹ Deam, Charles. *The Forests of Indiana, Past, Present, and Future*. Indiana Dept. of Conservation. One Hundred Years of Indiana's Resources. (Fort Wayne, IN: Fort Wayne Printing Company, 1920), 25-26.

becomes unproductive, and is abandoned. This fact is exemplified by the possibly a half million acres in southern Indiana that have helped to enrich the delta of the Mississippi River by millions of tons of fertile soil, made so by centuries of forest cover.¹⁰

His report highlighted the rapid rate of destruction suffered by the forests due to settlements. His work was instrumental in passing a future bill a year later.

After his report was published he drafted the Forest Classification Act of 1921 (House Bill 77). This bill made it more appealing for farmers to keep forested land instead of turning it to farmland by exempting woodlands from taxation. The bill proved to be prosperous and after 25 years 2,000 acres of privately owned land was transformed into forests. Other states also looked to Indiana's bill to pass laws of their own, similar in nature.

Even after his service as state forester was over, Deam still worked hard to gather botanical specimens. The book, *A Congenial Fellowship*, looks at letters exchanged between Deam and Floyd Swink, a fellow botanist. The letters expressed concern over what other people were doing to help save native plants.¹¹ Even in his last years, Deam was interested in the future of Indiana's environment. He was actively reviewing other botanists' work and collecting samples for his collection.¹² It was his life's work to protect native species so that other people could enjoy them in the future.

World Wars Cause a Shift in Use of Land

During World War I demands for fuel had many coal companies leasing acres of farm land to extract the coal underneath the land. Strip mining, a fairly new process, created conditions where run off picked up acid from the soil that inhibited vegetation and deep pits left

¹⁰ Deam. "Forests", 26.

¹¹ Mohar, Peg, ed. *A Congenial Fellowship: A Botanical Correspondence Between Charles C. Deam and Floyd A. Swink, 1946-1951*. Michigan City, IN: Shirley Heinze Environmental Fund, 2000), 15.

¹² Ibid., 166.

the land uneven and useless for farming. Experiments by the Division of Forestry proved that after three years, trees could be planted in the barren farmland.¹³ The trees that were planted in the disturbed mines were from the recently created nursery in Clark State Forest.

The years after the first war and before the second were marked by experiments in the nursery growing different types of trees for various purposes. The most promising trees planted in the nursery were: pine, locust, oak, spruce, walnut, poplar, and maple.¹⁴ Most of the trees planted in reforestation require a variety of tree species; however, white pine was used extensively all over the state for windbreaks because they grow thick and fast. Some of these were also sold as Christmas trees.

The Civilian Conservation Corps Comes to the Rescue

During the Great Depression the state forests were touted as outdoor recreation destinations. The Civilian Conservation Corps (CCC) was one Franklin D. Roosevelt's earliest New Deal Programs. The CCC's purpose was to provide employment during the Great Depression. The project mainly employed single males and revolved around conservation issues.

The men worked in camps and got a monthly cash allowance of \$30, most of which was to be sent home to their families; they were also provided food, medical care, and other necessities.¹⁵ The CCC, which at its largest employed 500,000 men, provided work 64,000 Indiana men.¹⁶

At Clark State Forest the CCC was primarily involved in creating trails, construction, nursery work, and fire prevention. They created a 100-foot fire tower located at the highest peak

¹³ "Reforestation Demonstrated." *Outdoor Indiana*. March 1, 1934, 4.

¹⁴ "Busy Season for the Nurseries." *Outdoor Indiana*. April 1, 1934, 17.

¹⁵ "Indiana and the Civilian Conservation Corps." Celebrating New Deal Arts and Culture. Accessed April 27, 2015. <http://www.indiana.edu/~libsalc/newdeal/CCC.html>.

¹⁶ "Civilian Conservation Corps Resource Page." The C.C.C. State-by-State: Indiana. Accessed April 27, 2015. <http://cccresources.blogspot.com/2013/05/the-ccc-state-by-state-indiana.html>.

in the land that could detect fires within a 25-foot radius.¹⁷ Many of the projects the CCC worked on in Clark State Forest could not have been afforded by the state at that time. The relief the CCC brought to the Division of Forestry was invaluable.

During WWII there was not much activity in the Division of Forestry. All available resources were being directed towards the war effort. With the fuel shortage many Americans were not traveling long distances and only used their cars for special circumstances. To encourage spending time with loved ones the writers of *Outdoor Indiana* suggested visiting the state parks and forests. The writers knew that people still needed to find enjoyment in life and that spending time in the outdoors would keep Hoosiers' minds off of the sacrifices they were making here at home and overseas.¹⁸ This helped create an atmosphere that transformed using the state forests as experiment sites into destinations for outdoor recreation.

Nature Preserve Brings Visitors

Some of the first recreation modifications can be attributed to the creation of tree nurseries in Clark State Forest. Clark State Forest has two nature preserves. The nurseries have since been turned into nature preserves that currently maintain natural ecological conditions. The first nursery was created in 1925; seedlings cultivated here were sold to farmers to be planted in eroded lands.¹⁹

The Civilian Conservation Corps (CCC) had a significant hand in creating the first nursery. They designed and constructed an irrigation system and water supply dams to support the nursery.²⁰ While working on the water systems, they also built a packing shed to help aid in

¹⁷ Wilcox, Ralph. "Clark State Forest." *Outdoor Indiana*. August 1, 1959, 31.

¹⁸ "Parks in Wartime." *Outdoor Indiana*. March 1, 1942, 19 and 31.

¹⁹ Indiana State Forests. Indiana Clipping File. *The State Forest Properties of the Indiana Department of Conservation*. Indiana State Library.

²⁰ "Civilian Conservation Corps Taking Leading Part in Forestry Programs." *Outdoor Indiana*, July 1, 1935, 21.

Abstract

Clark State Forest and Deam Lake State Recreation Area contain thousands of acres of forests and lakes. These lands attract visitors from all over Indiana and neighboring states. Clark State Forest was the first state forest created in 1903. Clark State Forest was used for experimental plantings and research projects for multiple decades before it became a popular recreation destination. Some recreational development took place before the 1930s, and then the CCC expanded the development of recreational resources. Today the forest is used for hiking, hunting in season, camping, and fishing. Deam Lake State Recreation Area was created to provide an outdoor recreation area for the public from a portion of Clark State Forest. It was founded in 1964 and is one of the most popular horseback riding properties in Indiana. Currently the Indiana Department of Natural Resources is having a hard time convincing the public that the state forest is meant for forestry projects and that recreation purposes come secondary.

shipping and handling the seeds.²¹ The nursery did not start functioning fully until 1933, but by 1940, the nursery contained 5,548,000 trees and the CCC was responsible for building a new nursery building that had space for an office along with a larger area for shipping and processing of the seeds.²²

From these seedlings, Clark State Forest began a demonstration planting project in the early 30s.²³ Even though there had been a couple recreation areas constructed prior to the 1930s, it was at this time that the Department of Forestry began to create simple recreation sites for the public that were interested in these plantings, such as picnic areas.²⁴ This project focused on showing visitors how different tree species grew and the effects of various soil conditions had on the seedlings.²⁵ The second nursery was created later when it was evident that the original nursery would need to expand.

These nurseries, turned preserves, are two of over 225 nature preserves in Indiana created and protected by the Nature Preserves Act passed in 1967 by the General Assembly. This act was supported by individual citizens and conservation groups. Individuals thought that it was important to maintain a “natural Indiana” to have a glimpse of the past.²⁶ Nature preserves are set aside to protect the plants, animals, and natural communities which are found on them.

The first, White Oak, is an oak-hickory forest spread across 143 acres. Aptly named after the white oak, the white oak tree is the main tree found in the forest. It also supports red, black, scarlet, post and chestnut oaks, along with pignut, shagbark and bitternut hickories.²⁷ The second

²¹ Ibid.

²² “Division of Forestry.” *Outdoor Indiana*, January 1, 1941, 26.

²³ “Civilian Conservation Corps”, 26

²⁴ Ibid.

²⁵ “Division of Forestry.” *Outdoor Indiana*, January 1, 1941, 27.

²⁶ Bacone, John. Et al. "Indiana Department of Natural Resources." DNR: 40 Years of Nature Preserves. January 1, 2009. Accessed February 10, 2015. <http://www.in.gov/dnr/naturepreserve/5562.htm>.

²⁷ "White Oak Nature Preserve." Indiana. Accessed March 14, 2015. <http://www.in.gov/dnr/naturepreserve/files/np-WhiteOak.pdf>.

nature preserve is Chestnut Oak/Virginia Pine. The forest is 24 acres of predominantly Virginia pine on the upper slopes and chestnut oak on the lower.

Oak and Pine timber are some of the most sought after timber resources due to their unique qualities. Oak is both pliable and durable. It stains well and resists moisture. These qualities are what make it perfect for furniture making. Pine is an ideal working material because it is easy to work with. Pine is used in the construction for a variety of products, such as frame houses, paneling, mass produced furniture, and wood pallets.²⁸

Camping Becomes a Focal Point of Recreation Activities

By the 1950s the nursery was thriving and camping had been introduced to the area. The CCC had built four artificial fishing lakes that attracted visitors from Louisville, Jeffersonville, and New Albany.²⁹ Clark State Forest's location made it an ideal area for visitors. In the 1960s, the Division of Forestry recognized the public's demand for more recreation facilities and expanded camping areas, furnished picnic areas, created more lakes and beaches, and sanitary facilities.³⁰ Deam Lake State Recreation Area was created at a time when State Recreation Areas were being established all over the state.

Deam Lake State Recreation Area, as the name states, honors Charles C. Deam. It is located near Borden, Indiana. Deam Lake "was impounded in 1964 for purposes of flood control and recreation."³¹ The lake is part of the Ohio River System and is 194 acres itself. The total acreage for the state recreation area is 1300 acres.

²⁸ "Furniture Materials and Wood Types." Online Design Teacher. Accessed March 12, 2015.

http://www.onlinedesignteacher.com/furniture_design/furniture_materials.html#.VTmMQvnF-Sp.

²⁹ "Clark State Forest." *Outdoor Indiana*, August 1, 1959, 31.

³⁰ "Forest Recreation Program Expanded—Greene-Sullivan Canoe Trip Mapped" *Outdoor Indiana*, December 1, 1960, 4.

³¹ Conrad, Jane. "Knobstone Trail – Deam Lake Region." Indiana Trails. Accessed March 10, 2015.

<http://www.indianatrails.com/content/knobstone-trail—deam-lake-region>.

Along with many other similar recreation areas created at this time Deam Lake was created with the purpose of being an addition to Clark State Forest. The area was specifically built to offer picnic areas and shelters that would make it easy to relax with friends and family. Swimming and fishing were both allowed on the lake whereas the lakes in Clark State Forest are only used for fishing.

One of the largest attractions of Deam Lake is its campsites and newly built cabins. The cabins were built in 2012 and are made completely from reclaimed wood from nearby state forest properties. In cooperation with other units of the Department of Natural resources this is a great example of how the state forests utilize the resources of other divisions. Deam Lake relies on the public to volunteer and help maintain the recreation area and its trails. As a testament to lack of support from the legislature Deam Lake and forests rely heavily on the public to volunteer and help maintain the recreation area and its trails.

Volunteers recently finished working on Trail 5 or Forest Education Trail. It was blazed, cut, and built by an Eagle Scout candidate and volunteers. The public feels connected to these projects because they have helped build up the area and worked closely with the park management team to see trails be built and make improvements to the land. Deam Lake is a perfect example of how the Department of Forestry has garnered attention and love from the public for reasons other than forest conservation.

Even in the 1960s, the recreation area was facing staff and funding problems. The forest and recreation area was depending on student foresters to manage the forest, to improve timber stand improvement plans, and deal with withering budgets.³² Rezoning areas had to be done to make the multi-use concept work fluidly. Part of Clark State Forest was rezoned to be part of Deam Lake State Recreation Area. Other areas of land were privately owned and sold to the state

³² "Indiana State Forest—A 60th Anniversary." *Outdoor Indiana*. January 1, 1964, 26.

to make room for Deam Lake. A fee system had to be implemented to take the burden off of public funds.³³ The costs of recreation activities were straining the physical facilities at Clark State Forest and the department budget did not have enough money to support the new recreation area.

Horseback Riding Becomes Popular

Riding trails in the state forest were first implemented in the 1940s but were perfected at Deam Lake. While still only a small percentage of visitors could afford them, horses became more popular to own in the 1940s and the public needed more places to ride them.³⁴ The state parks were the first to create trails and saddle barns. Horses were expensive to own which led to the popularity of saddle barns in the state parks. It was not long after the saddle barn popularity hit its peak that the state forests began allowing horse riding. As the decades progressed, horses became cheaper to own and more people were looking for areas to ride. When Deam Lake was created, the design team thought that the public would enjoy part of the multi-use concept to incorporate horseback riding; they were not wrong. Families flock to Deam Lake for horseback riding because the trails are well kept and the horse campground has been well planned and utilized.

Every year the Division of Natural Resources Division of Forestry has an open house and in 2014 moved to Deam Lake to make use of the riding trails. The *Courier-Journal* quoted Dan Ernst, assistant state forester with the Division of Forestry as saying, "It's one of the top three horse camping sites in the state."³⁵ Deam Lake State Recreation Area has a large horse

³³ Ibid., 28

³⁴ "To Horse, To Horse." *Outdoor Indiana*. February 1, 1948, 7.

³⁵ Esarey, Jenna. "Outdoor Enthusiasts Retreat to Deam Lake." *The Courier-Journal*. May 9, 2014. Accessed March 24, 2015. <http://www.courier-journal.com/story/news/local/indiana/2014/05/09/outdoor-enthusiast-retreat-deam-lake/8919011/>.

campground that can accommodate 80 horses.³⁶ The large horse campground makes it an ideal location for riding clubs to gather and host events.

Knobstone Trail Attracts Hikers

Knobstone Trail is the largest trail contained solely in Indiana. The trail was first established in 1980, and was only 32 miles long. The path was named after the Knobstone escarpment. An escarpment is a long steep slope that separates land at different heights. The Knobstone escarpment runs between the “high lands in the west and lowlands in the east.”³⁷ The land feature creates many hills in the area that lend the trail and escarpment their “knobby” name.³⁸ Trail enthusiasts have long hoped that the Knobstone trail would be expanded to run from Louisville, Kentucky to Martinsville, Indiana; this expansion would increase the length of the trail to 140 miles.³⁹

Nathan Strange wrote *A Guide to the Knobstone Trail* in 2011 and chronicled how and why the Knobstone Trail was created. In 1968 the National Forest Roads and Trails act was passed by Congress. This led to an increase in public interest of the outdoors. People across America wanted to have designated trails and sites that they could enjoy. The citizens of Indiana were no different; the Indiana DNR listened and gave them what they wanted.

Indiana DNR created a 5-year strategic plan to qualify for federal grants through the Land and Water Conservation Fund.⁴⁰ One of the writers for this plan was Jerry Pagac; Pagac graduated from the University of Oregon and spent two years working on the plan. He was later

³⁶ "Deam Lake State Recreation Area Deam Lake Horse Campground." IN.gov. July 1, 2014. Accessed April 27, 2015.

³⁷ "Knobstone Trail." Hoosier Hikers Council. Accessed March 17, 2015.
<http://www.hoosierhikerscouncil.org/knobstone-trail/>.

³⁸ Ibid.

³⁹ "Northern Knobstone Trail." Indiana Trails. Accessed March 17, 2015.
<http://www.indianatrails.com/content/nothern-knobstone-trail>.

⁴⁰ Strange, Nathan D. *A Guide to the Knobstone Trail: Indiana's Longest Footpath*. Bloomington: Indiana UP, 2011, 9.

promoted to Streams and Trails Coordinator for the Division of Outdoor Recreation. One of his duties was to develop local trail projects. He realized that it would be possible to create a long-distance trail if Clark State Forest and Jackson-Washington State Forest were connected.⁴¹ Pagac had the idea to create the trail system but needed help implementing it. In 1975, Joe Payne was hired to assist Pagac. Payne was a student from the University of Calgary with a degree in environmental design.⁴² Payne would assist Pagac until 1975 when they were both promoted and Payne took over Pagac's position. Payne was able to start the project of blazing the trail with the Young Adult Conservation Corps (YACC).

The YACC was created in 1977 through an amendment to the Federal Comprehensive Employment and Training Act of 1973; it is regulated by the U.S. Department of Labor, Agriculture, and Interior and the Indiana DNR.⁴³ The YACC provides jobs and training to young adults that are unemployed.⁴⁴ Payne and members of the YACC worked for two years clearing the trail. While working on the project, the crew stayed at Deam Lake State Recreation Area.⁴⁵ Payne realized he needed more help on the project and gathered a team of 20 workers and a multitude of volunteers.⁴⁶ The northern part of the trail was done by volunteers from the Indianapolis Hiking Club and the Youth Conservation Board of Washington County in 1981.⁴⁷ The initial trail was completed in 1990 and provided Indiana with its largest trail.

Conclusion

The forestry program that started in Clark State Forest has led to thousands of acres of new forests that otherwise might still be empty farmland if deforestation and soil erosion had not

⁴¹ Ibid., 10

⁴² Ibid., 25

⁴³ Payne, Joe. "Knobstone Trail Reflections—32 Miles of Forest Hiking." *Outdoor Indiana*, April 1, 1981, 6.

⁴⁴ Strange. *Guide to the Knobstone Trail*, 11

⁴⁵ Payne. "Knobstone Trail Reflections." *Outdoor Indiana*, April 1, 1981, 6.

⁴⁶ Strange. *Guide to the Knobstone Trail*, 18

⁴⁷ Ibid., 17

been stopped. Clark State Forest is currently operating at a pace of three percent growth for every 100 acres that are cut down for timber harvesting.⁴⁸ Indiana is ranked as the 6th largest producers in the nation for hardwood lumber and Clark State Forest is one of the state's largest producers of hardwood.⁴⁹ The Division of Forestry should make an effort to educate the public on history of the state forest and highlight all of the experimental forestry that has taken place on the property. The public needs to understand that the forest was created to provide citizens with an ongoing source of timber.

Charles Deam can be credited with realizing the long term effects of deforestation and soil erosion that led to farmers planting trees in farmland that had been over farmed. He knew that Clark State Forest could be an ideal location for experiments that would lead to the creation of tree nurseries. The tree nurseries were used to create new forests around the state of Indiana and to create windbreaks. Deforestation and soil erosion would have kept Indiana from being able to maintain a healthy ecosystem for animals and native plants. The public was intrigued by the experimental plantings at Clark State Forest and began the push for recreation sites while visiting.

Clark State Forest has been transformed from an experimental forest into a recreation destination in the minds of citizens. The CCC was instrumental in constructing trails, buildings, and picnic areas; the CCC also built the man-made lakes that are located at Clark State Forest. Without the involvement of the CCC, Clark State Forest would not have been developed enough to support recreation activities. The government could not afford to make these improvements with the meager budget they had at the time. To this day the Indiana Department of Natural Resources is still under budgeted and relies on the support of volunteers.

⁴⁸ Bacone, John. Et al. "Indiana Department of Natural Resources."

⁴⁹ Ibid.

The public has given much of their time and attention to making Clark State Forest a successful recreation area. Public interest groups like the Indianapolis Hiking Club and Indiana Trails members have worked to create trails and monitor them for safety hazards. The Indianapolis Hiking Club worked with Joe Payne to finish the northern part of the Knobstone Trail.

The public sees parks and forests as synonymous and in many ways parks and forests offer the same services to the general public. In most instances they both allow hiking, camping, and fishing; these are some of the most popular outdoor activities one can do with little investment. Because the public can easily do any of these activities at each location it is hard for them to discern why they are different. The idea that the forests are there for timber resources is not well known to the public.

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